BRUHAT BANGALORE MAHANAGARA PALIKE
YELAHANKA ZONE

Estimate Cost Rs. 2000000.00

Name of Work: Drilling of borewells and providing pump and motors in Allalsandra SC colony, Someshwaranagara and Sharada Nagara in Ward no:04 of Yelahanka New Town.

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
1	Geophysical investigation of site for sinking Borewell for supplying drinking water to the habitation either through the Hand pump, MWS of PWSS by vertical electrical sounding by adopting Venner or Schlumberger's method, including reconnaissance survey of geological formation, Geophysical investigation of existing Ground Wate in the vicinity, its quality(1.0 meter in consolidated formation for proper sealing of casing pipe, depth of drilling required to cover full depth of aquifer proposed to be tapped, probable yield and other information required including trans portation of instrument and accessories to work site., engaging technical personal and labour required etc., as per Specification and direction (P.48, I. 9.4) PRED.SR 2012-13	Each BW	3				3	1882.00	5646.00
2	Sinking borewell of 165 mm dia clear using super fast hydraulic rig of capacity 250 PSIG & above CFM & above in all strata including over burden upto 20 mts fixing of casing pipes, collars and cap with necessary cutting, threading and welding including transportation of rig and supporting vehicles, crew charges and cost of consumables etc., complete including yield testing at the final depth with a minimum working of compressor for one hour (excluding cost of casing pipes, collars, cap etc.,) P. 46 / I. 9.1 PRED SR 2012-13	Rmtr							
	0 to 50 m		3	50.00			150.00	306.00	45900.00
	50 to 100 m		3	50.00			150.00	400.00	60000.00
	100 to 150 m		3	50.00			150.00	445.00	66750.00
	150 to 200 m		3	50.00			150.00	470.00	70500.00
	200 to 250 m		3	50.00			150.00	544.00	81600.00
	250 to 300 m		3	50.00			150.00	583.00	87450.00
3	Supply of ISI mark 175 mm nominal bore, Plain end steel casing pipe - grade of Steel Fe 410 of wall thickness 5.4mm thick confirming to IS 4270 2001 and latest amendments, electric resistance welded steel tube material and confirming to IS 1387/1993 and manufactured by basic open hearth electric or basic oxygen process in random length of 5 to 7 mts both ends threaded confirming to IS 554/1985, one end fixed with socket confirming to IS 4270:2001 and the other end with screwed pipes ISI Marking weighing 25.10Kg/mtr (Inclusive of all taxes and duties) Prices include Collar-medium duty P. (ri. I No. 64 PRED SR 2012-13	Rmtr							

Sl No	Description of Item	Unit	No	L	B	D	Qty	Rate	Amount
			3	70.00			210.00	1325.00	278250.00
3	Providing 250mm dia PVC Pipe 6kg/cm SE PRED Approved Rate	Rmtr							
			3	18.00			54.00	754.47	40741.00
5	Providing and fixing 160mm Borewell Cap P. III, I No. 85	Each							
			3				3	100.00	300.00
6	Supply and delivery at site brand New Texmo/ Innovel/ Lubi/ Sabar / Atalanta/ Calamal/ make suitable for vertical installation in 150mm dia bore well comprising of single stage or multistage CF pump close coupled by means of stainless steel coupling to suitable HP suitable speed totally enclosed and filled with pure drinking water (Wet type) squirrel cage submersible induction motor suitable for operation of 3PH, 50 Hz, 380/440 volts AC supply fitted with required accessories such as suction, casing suction strainers sand guard Non return value etc. complete . The pump and motor shall form an integral unit with all the required fittings 12.50 HP 20 stage SE RDED Approved Rate PWD SR 2010-11 P. XXXIII Item No. 23 CRI Pumps	No							
	12.5 HP 20 Stage		3				3	60084.00	180253.00
7	Supplying of ISI marked galvanized mild steel tube (continously welded electric resistance welded (ERW) high frequency, induction welded (HFIW) Hot finished welded type of nominal bore given below screwed at both ends as per IS 554/1986 with latest amendments, pipes threaftes at one end and the other end protected asper specification in random lengths of 4 to 7 mtrs Confirming to IS 1239 part 1/1990 with amendament 1-3 and with all its latest amendoments if any. The pipes supplied should be with BIS mark No 3/08-09 2406/15 10.2008	Rmtr							
			3	260.00			780.00	375.00	292500.00
8	Heavy Duty Collar 50 mm dia	Nos	110				110	130.00	14300.00
9	Supplying and drawing 3 core flat PVC sheathed submersible pump cable manufactured with electrolytic grade copper with flexible copper conductor confirming to table 3 class 5 of IS:8130-1984 and virgin grade PVC insulation and sheathed suitable for working voltage upto 1100 Volts P. No. 49/ I. No. 79-b(1) 4 Sqm mm of 56 strands 0.3mm dia Group - A KPWD Electrical SR 2010-11	M/r							
			3x2	270.00			1620.00	151.00	244620.00
10	Erection of pumpset including aligning and balancing with all necessary erection materials and labour including supply and erection of one pair supporting clamps, one borewell cap Cable clips with bolts, nuts, valves guages etc., involved in the job (Necessary GI pipe and spigots with be supplied by the board at the site free of cost) (As per rate approved KUWS & DB for year 2008-09	No							

Sl No	Description of Item	Unit	No	L	B	D	Qty	Rate	Amount
			3				3	3000.00	9000.00
	Supplying and fixing 20"x20"x2.5" polished wood board made of not less than 15mm thick planks on both sides with planks made out of not more than 2 pieces and fixing the same to the wall using tapered inverted wooden plugs screws etc., P No. 32/ 1 No. 2/f KPWD Electrical SR 2010-11	Each							
			3				3	285.00	855.00
12	Supplying of LTUG cable having aluminium conduter PVC insulated shethed, galvnised steel, wire / steel tap armoured cable with PVC outer sheathing 1.1 KV class.P No. 69/ I No. 4(d) 4 core 16 Sqmm KPWD Electrical SR 2010-11	Mtr							
			3	25.00			75.00	150.00	11250.00
13	Labour charges for laying of 1.1 K.V class UG cable (PWD Electrical SR-1999-2000, P No. 69 / I No. Ia In existing troncg/duct 89qmm to 16 Sqmm) KPWD Electrical SR 2010-11	Mtr							
			3	25.00			75.00	8.00	600.00
	For Cutting Road Surface		3	20.00			60.00	60.00	3600.00
15	Supplying and fixing of Class A (meaium duty) GI pipe of wall thickness not less than 3.25mm on pole/wall/drain crossing with necessary clamping arrangements for UG cable of 1.1 KV class P. No. 70/ I No.9-A KPWD Electrical SR 2010-11	Mtr							
	40mm dia GI pipe		3	4.00			12.00	240.00	2880.00
16	Supplying and fixing L.T. cast iron pot head suitable for 1.1 KV class UG cable filled with necessary bitumen/insulating compound complete with terminals, clamps, bolts, nuts and washers etc., P. No. 70/ I No. 10-b KPWD Electrical SR 2010-11	No.							
	16Sqmm		3				3.00	260.00	780.00
17	Supplying, fixing, wiring, earth electrode for grounding conduits, I.C cutouts and other equipments on the meter board using 40 mm dia 2.90 mm thick GI pipe 2.5 m long buried in a pit. The pit should be filled with equal propotion of soil and charcoal 150 mm around the pipe to complete depth. The connection from the pipe to the conduit etc., is to be established through GI wire of size, as per ISI specification 7.3.3 IS 732 using 12 mm dia bolts, nuts, washers and check nuts, etc., the pipe shall have 16 throught holes of 12.2 mm dia, (PWD Electrical SR-1999-2000, (P No.88, I No. I) KPWD Electrical SR 2010-11	No							
			3				3	1950.00	5850.00

S No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
	Supplying and fixing of Porcelain fuse channel with cut out on existing wooden / panel using necessary nuts, bolts and washer etc., complete.... P No. 32/I No 3b KPWD Electrical SR 2010-11	No.							
	32 Amps		3x6				18	100.00	1800.00
19	KSRB 13-7.1-4 Providing and fixing in position 50mm nominal bore gun metal non-return valve horizontal type of approved make including cost of all materials, labour and HOM of equipments with all leads complete as per specifications NO KSS 13.2.16 / 13.13 Page No. 99 Item No. 13.55 / PWD SR 2012-13	Nos							
			3				3	1114.05	3342.00
	Basic Rate	1051.00							
	Area Weightage @ 6%	63.05							
	Total	1114.05							
20	Providing NP/CP waste unions conforming to ISI specifications and fixing them in position as per directions including cost of materials, fixtures and conveyance to work spot etc., complete. P. No. 103 / I. No. 13.81.3 PWD SR 2012-13	No							
	50mm dia		3				3	201.40	604.00
	Basic Rate	190.00							
	Area Weightage @ 6%	11.40							
	Total	201.40							
21	Supplying and fixing 50mm dia GI X nipple with ISI mark with all lead and lift loading unloading and labour charges etc complete	No	3	4.00			12	60.00	560.00
22	Supplying shunt capacitors conforming to IS 2834, 3phase 400/440 volts grade for power factor improvement of rotating machinery, Capacitor in KVAR rating Nos. 2KVAR capacity with all lead and lift =, loading, unloading and labour charges etc complete as per specifications	No	3				3	350.00	1050.00
23	Supplying and fixing miniature circuit breakers/isolaters on existing MCB distribution boards using necessary fixing materiael wiring complete as required 5 to 30 amps triple pole with all lead and lift loading, unloading and labour charges etc complete as per specifications	No	3				3	1000.00	3000.00
24	Fabrication supplying and mounting MS box of 16 SWG suitable for floor /wall mounting, fully weather proof with provision for better heat dissipation, provided with hinged front cover, equipped with tamper proof locking arrangements, with suitable size clamps with necessary cable entry pipe with gland and box should be finished 2 coats of red oxide primer paint and finally finished with approved colour enamelled metal paint etc., complete box of 21600 sqcm @ Rs. 33 P.No. 41, I. No. 38B KPWD Electrical SR 2010-11	Sq.Cm							
	16SWG		2x3	120.00	60.00		43200.00		
			3	360.00	25.00		27000.00		

Sl No.	Description of Item	Unit	No	L	B	D	Qty	Rate	Amount
							70200.00	0.33	23166.00
25	Supplying and delivery at site brand new star / Essen/ Lotus/Sun-shine/Adarsh/ GK Controls best indigenous make combined energy meter cum- control panel board unit of size 600x450 x200 mm minimum mechanically strong vermin and water proof. The unit shall have two detachable doors suitable for operation on 3 ph, 50Hz, 380/440 volts, A.C supply with spring loaded latch locking device with a key nibs should be provided inside the door, canopy apron and louvers ventilators shall be provided. the combined energy meter cum-control panel board shall be suitable for operation. The panel board shall be fabricated on single unit in the above components for suitable pumpset 15 HP to 20 HP **Star Delta Starter SERDED Rate**	No.	3				3	11000.00	33000.00
26	Earthwork excavation for pipeline trenches including dumping / bank up to a lead of 50 mtrs including leveling and stalling danger lighting and railings and boming police at every 100 mtrs wherever necessary as directed in the following structure manhole. **Page No. 61 Item. No.1.2.2 / PRED SR 2012-13 Hard Soil**	Cum							
			3	75.00	0.45	0.75	75.94		
							75.94	188.00	14276.00
	Basic Rate	188.00							
27	Providing and laying at site of works P.V.C Pipes including cost of pipes and specials etc complete lowring into trenches, laying true to line and level and perfect linking at joints, leak proof including jointing encasing the pipe sides with earth Not less than 15cm with gravel or sand available from the excavation as per **Page No.15 Item No.3.4.2 b PRED SR 2012-13** 75 mm dia PVC pipe	Rmtr	3	75.00			225.00		
							225.00	157.00	35325.00
28	Refilling the sides and pipeline trenches with selected earth for trench excavation as per authority condition in layers from the existing disponsary of the surplus earth every 200 mtrs **Page No. 31 Item No. PRED SR 2012-13**	Cum							
			Qty. Vide Item No. 27				75.94	61.00	4632.00
	Basic Rate	61.00							
29	KSRB 13 providing and fixing in position complete with C.I wheel of approved design and) **50mm** nominal bore cost of all materials, labour and all equipments with all leads complete as per specifications. Specification No. KSB 13.2 Page 97 **/ 1.13.37 PWD SR -**	Each							

	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
			10				10	1562.56	15625.00
	Basic Rate	1490.00							
	Area Weightage @ 6%	89.56							
	Total	1562.5							
30	Repairs to existing borewell								
a	Lifting of Submersible pump set (P.40/I.13) PRED SR (2008-09)	No.	7				7	700.00	4900.00
b	Transportation of pumping machineries (P.41/I.14)PRED SR (2008-09)	No.	7				7	550.00	3850.00
c	A) Repairs to Motor Rewinding of submersible pump sets with copper insulation wire of suitable gauge as per ISI with guarantee of 6 months (P.40/I.8-09) P No. 39/ I. No. A) (Above 5 HP upto 10HP add Rs.175/- for every ½ HP,								
	B) 10 HP (Above 5 HP upto 5 HP for 10 HP 4350.00 Total 4350	No.	8				8	4350.00	34800.00
	B) Replacement of Motor Parts								
d	Stator (with 1 year guarantee) P No. 40/ I No. C(1) PRED SR (2008-09)	No.	7				7	5400.00	37800.00
e	Rotor (with 1 year guarantee) P No. 40/ I No. C(2) PRED SR (2008-09)	No.	8				8	4000.00	32000.00
f	Upper Flange P. No. 40 / I No. 3 PRED SR (2008-09)	No.	8				8	300.00	2400.00
g	Lower Ho P. No. 40 / I No.4 PRED SR (2008-09)	No.	8				8	490.00	3920.00
h	Lower flan P. No.40 / I No.5 PRED SR (2008-09)	No.	5				8	370.00	2960.00
i	a) Carbon Bush P. No. 40 / I No.7A PRED SR (2008-09)	No.	7				7	370.00	2590.00
j	b) Thrust Bearing assembly complete with Segment P. No. 40 / I No.7B PRED SR (2008-09)	No.	8				8	500.00	4000.00

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
k	c)Top Cover ... bushing P. No. 40 / I No.7C PRED SR (2008-09)	No.	8				8	1600.00	12800.00
l	Bearing (Centrifugal) cast Aluminium Bronze, bearing bush P. No. 40 / I No.9 PRED SR (2008-09)	No.	10				10	370.00	3700.00
m	Motor Ba... No. 41 / I No.11 PRED SR (2008-09)	No.	8				8	370.00	2960.00
n	Re-erection ... pumping machineries including ... painting P. No. 40 / I No.15 PRED SR (2008-09)	No.	8				8	1000.00	8000.00
o	Labour ch... only) P. No. 40 / I No.12 PRED SR (2008-09)	No.	8				8	500.00	4000.00
p	C) Repla... The following main com... sible pump sets requiring re...								
q	Pump Bo... No.B1 PRED SR (2008-09)	No.	8				8	280.00	2240.00
r	Intermedia... with IP leaded bronze bush P. No... D SR (2008-09)	No.	8				8	650.00	5200.00
s	Oil Seal P... ED SR (2008-09)	No	8				8	110.00	880.00
t	Oil Seal S... No. 39 / I No.B4 PRED SR (2008-09)	No.	8				8	120.00	960.00
u	Guide van... PRED SR (2008-09)	No	8				8	175.00	1400.00
v	Impeller (... aluminium and Bronze) I... PRED SR (2008-09)	No.	8				8	240.00	1920.00
w	a) Discha... ring D.O Steel Bush P. N... SR (2008-09)	No.	8				8	475.00	3800.00
x	b) D.O Bu... I No.B7 PRED SR (2008-09)	No	8				8	85.00	680.00
y	Steel Bush ... bush) P. No. 39 / I No.A7 PRED SR (2008-09)	No.	8				8	160.00	1280.00
z	Allen Scre... No.8 PRED SR (2008-09)	No.	8				8	70.00	560.00

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
31	Supply of drinking water through water tanker in ward no:04 as per BWSSB approved rates.						420=00	360.00	1,51,200=00
32	BESCOM Deposit for Engersalion	LS							30000.00
32	KRIDL Supervision charges (2) 1%								2,20,000=00
33	Miscellaneous and Unforeseen Charges	LS							984.00
								Total	2000000.00

(Rupees twenty Lakhs Only)

CERTIFICATE:

1. The work spot has been inspected and the work is found necessary
2. This estimate is prepared as per C.S.R. of PWD 2013-14, PWD Electrical 2010-11, PRED 2012-13 & SE-ROED approved Rate
3. The provisions were made in this estimate are necessary and adequate
4. This works come under B.B.M.P. limits

K.M. Hanchi
Assistant Engineer
Ward No 04

Assistant Executive Engineer
Bruhat Bangalore Mahanagara Palike
Yelahanka Satellite Town Sub Division
Bangalore-64

Executive Engineer
Bruhat Bangalore Mahanagara Palike
Yelahanka Satellite Town Sub Division
Bangalore 64

Administrative Approval
Accorded for Rs 20.00 Lakhs
P 1802
Dt: 27.10.14

TECHNICALLY SANCTIONED FOR Rs 20.00 Lakh
Rupees Twenty Lakh only
P - 1802 - 2014-15
Signature of EE / AEE / AE
Subject to Conditions contained in
Estimate Approved
EE/BMCTS/101/14-15
28-10-14
Rs 20.00 Lakh
Assistant Engineer